11. (NEW) The composition of claim 10 wherein the cationic dye is represented by formula I:

$$[A-Z=N-B]^{+}X^{-}$$
 (1)

wherein Z is a nitrogen atom or a CH group;

A and B are independently of one another, a benzene ring or aromatic heterocycle group that is substituted or unsubstituted; and

X' is an anion.

- 12. (NEW) The composition of claim 11 wherein A or B or both have one or more substituents selected from halogen atoms, NR<sub>1</sub>R<sub>2</sub> groups, or OR<sub>1</sub> groups, wherein R<sub>1</sub> and R<sub>2</sub> are independently selected from hydrogen, a C<sub>1</sub> to C<sub>8</sub> alkyl group, a C<sub>1</sub> to C<sub>4</sub> hydroxyalkyl group, or a phenyl group.
- aminophenylazo-2-hydroxy-7-trimethylammoniumnaphthalene chloride, 2-methoxyphenylazo-2-hydroxy-7-trimethylammoniumnaphthalene chloride, 4-amino-3-nitrophenylazo-2-hydroxy-7-trimethylammoniumnaphthalene chloride, 4-amino-3-nitrophenylazo-2-hydroxy-7-trimethylammoniumnaphthalenechloride, 3-trimethylammoniumphenylazo-4N-phenyl-2-methyl-5-hydroxypyrazole chloride, (1-methyl-1-phenyl)-2-(1-methine-4N-methylpyridinium) hydrazine chloride, (1-methyl-1-paramethoxyphenyl)-2-(1-methine-4N-methylpyridinium) hydrazine chloride, (1-methyl-1-paramethoxyphenyl)-2-(1-methine-4N-methylpyridinium) hydrazine chloride, (4-dimethylaminophenylazo-2N-methyl-5N-methylimidazolium chloride, 4-dimethylaminophenylazo-2N-methyl-5N-methylimidazolium chloride, 4-methylaminophenylazo-2N-methyl-5N-methylimidazolium chloride, 4-aminophenylazo-4N-methylpyridinium chloride, 4-dimethylaminophenylazo-4N-methylpyridinium chloride, 4-dimethylaminophenylazo-4N-methylpyridinium chloride, 4-dimethylaminophenylazo-4N-methylimidazolium. or 3-amino-7-(dimethylamino)-2-methoxyphenoxazine-6-ium chloride, or combinations thereof.



- 14. (NEW) The composition of claim 10 wherein the cationic dye is present in an amount of from 0.001 weight percent to 3 weight percent, based on the total weight of the composition.
  - 15. (NEW) A kit for permanently waving hair comprising:
- (a) a cationic dye solution comprising at least one cationic dye, wherein the cationic dye is present in an amount effective to color hair and has a quaternary nitrogen atom that is optionally delocalizable and an -X=N- bond, wherein X is a nitrogen atom or a --CH- group; and
  - (b) an oxidative fixing solution comprising at least one oxidative fixing agent for permanently waving the hair.
- 16. (NEW) The kit of claim 15 further comprising a reducing solution comprising at least one reducing agent.
  - 17. (NEW) The kit of claim 16 wherein the cationic dye is represented by for nula I:

$$[A-Z=N-B]^{+}X^{-} \qquad (1)$$

wherein Z is a nitrogen atom or a CH group;

A and B are independently of one another, a benzene ring or aromatic heterocycle group that is substituted or unsubstituted; and

X is an anion.



- aminophenylazo-2-hydroxy-7-trimethylammoniumnaphthalene chloride, 2-methoxyphen, lazo-2-hydroxy-7-trimethylammoniumnaphthalene chloride, 4-amino-3-nitrophenylazo-2-hydroxy-7-trimethylammoniumnaphthalene chloride, 4-amino-3-nitrophenylazo-2-hydroxy-7-trimethylammoniumnaphthalenechloride, 3-trimethylammoniumphenylazo-4N-phenyl-2-incthyl-5-hydroxypyrazole chloride, (1-methyl-1-phenyl)-2-(1-methine-4N-methylpyridinium) hydrazine chloride, (1-methyl-1-paramethoxyphenyl)-2-(1-methine-4N-methylpyridinium) hydrazine chloride, (1-methyl-1-paramethoxyphenyl)-2-(1-methine-4N-methylpyridinium) hydrazine methylsulfate, 4-dimethylaminophenylazo-2N-methyl-5N-methylimidazolium chloride, 4-dimethylaminophenylazo-2N-methyl-5N-methylimidazolium chloride, 4-aminophenylazo-2N-methyl-5N-methylimidazolium chloride, 4-dimethylaminophenylazo-4N-methylpyridinium chloride, 4-dimethylaminophenylazo-4N-methylpyridinium chloride, 4-dimethylaminophenylazo-4N-methylpyridinium chloride, 4-dimethylaminophenylazo-4N-methylpyridinium chloride, 4-dimethylaminophenylazo-2N-methyl-5N-methylimidazolium, or 3-amino-7-(dimethylamino)-2-methoxyphenoxazine-i-ium chloride, or combinations thereof.
  - 19. (NEW) A method of permanently waving hair comprising:
- (a) applying a reducing solution to hair wherein the reducing solution comprises at least one reducing agent;
- (b) applying at least one oxidative fixing solution to the hair wherein the oxidative fixing solution comprises at least one oxidative fixing agent for permanently waving the hair; and
- (c) applying to the hair at least one cationic dye in an amount effective to color the hair and having a quaternary nitrogen atom that is optionally delocalizable and an X=V bond, wherein X is a nitrogen atom or a CH group, and wherein the cationic dye is applied to the hair (i) as a component of the oxidative fixing solution, or (ii) as a component of a third solution after application of the oxidative fixing solution, or (iii) both.



Received from < 6102786548 > at 2/28/02 11:08:43 AM [Eastern Standard Time]

Serial No. 09/601,868 Art Unit: 1751

20. (NEW) The method of claim 19 wherein the cationic dye is represented by formula I:

$$[A-Z=N-B]^{+}X^{-} \qquad (I)$$

wherein Z is a nitrogen atom or a CH group;

A and B are independently of one another, a benzene ring or aromatic heterocycle group that is substituted or unsubstituted; and

X is an anion.

21. (NEW) The method of claim 20 wherein A or B or both have one or more substituents selected from halogen atoms, NR<sub>1</sub>R<sub>2</sub> groups, or OR<sub>1</sub> groups, wherein R<sub>1</sub> and R<sub>2</sub> are independently selected from hydrogen, a C<sub>1</sub> to C<sub>8</sub> alkyl group, a C<sub>1</sub> to C<sub>4</sub> hydroxyalkyl group, or a phenyl group.



aminophenylazo-2-hydroxy-7-trimethylammoniumnaphthalcne chloride, 2-methoxyphcn-lazo-2-hydroxy-7-trimethylammoniumnaphthalcne chloride, 4-amino-3-nitrophenylazo-2-hydroxy-7-trimethylammoniumnaphthalene chloride, 4-amino-3-nitrophenylazo-2-hydroxy-7-trimethylammoniumnaphthalenechloride, 3-trimethylammoniumphenylazo-4N-phenyl-2-methyl-5-hydroxypyrazole chloride, (1-methyl-1-phenyl)-2-(1-methine-4N-methylpyridinium) hydrazine chloride, (1-methyl-1-paramethoxyphenyl)-2-(1-methine-4N-methylpyridinium) hydrazir echloride, (1-methyl-1-paramethoxyphenyl)-2-(1-methine-4N-methylpyridinium) hydrazir emethylsulfate, 4-dimethylaminophenylazo-2N-methyl-5N-methylimidazolium chloride, 4-methylaminophenylazo-2N-methyl-5N-methylimidazolium chloride, 4-aminophenylazo-2N-methyl-5N-methylimidazolium chloride, 4-aminophenylazo-2N-methyl-5N-methylimidazolium chloride, 4-dimethylaminophenylazo-4N-methylpyridinium chloride. 4-dimethylaminophenylazo-4N-oxidopyridinium chloride. 4-(4-aminophenylamino)phenylazo-2N-methyl-5N-methylimidazolium, or 3-amino-7-(dimethylamino)-2-methoxyphenoxazine-i-ium chloride, or combinations thereof.

- 23. (NEW) The method of claim 19 wherein the cationic dye is present in the oxidative fixing solution or the third solution in an amount of from 0.001 weight percent to 3 weight percent, based on the total weight of the solution.
- 24. (NEW) The method of claim 19 wherein the solution containing the cationic dye has a pH of 5 or greater.
- 25. (NEW) The method of claim 24 wherein the solution containing the cationic dye comprises 60 weight percent or greater water. --

